

WHAT IS CLAIMED IS:

1. A thermoplastic transparent resin composition comprising:  
3-15 parts by weight of small aperture polybutadiene rubber latex;  
5-25 parts by weight of large aperture polybutadiene rubber latex;  
40-70 parts by weight of a methacrylic acid alkylester compound or an acrylic acid alkylester compound;  
15-30 parts by weight of an aromatic vinyl compound; and  
1-20 parts by weight of a vinylcian compound.
2. The resin composition of claim 1 wherein the composition further comprises 0.2-0.6 parts by weight of an emulsifying agent, 0.2-0.6 parts by weight of a molecular weight controlling agent, and 0.05-0.3 parts by weight of a polymerization starter.
3. The resin composition of claim 1 wherein the small aperture polybutadiene rubber latex has a particle diameter of 600-1500 Å, a gel content of 70-95%, and a swelling index of 12-30.
4. The resin composition of claim 1 wherein the large aperture polybutadiene rubber latex has a particle diameter of 2600-5000 Å, a gel content of 70-95%, and a swelling index of 12-30.
5. The resin composition of claim 1 wherein the methacrylic acid alkylester compound and the acrylic acid alkylester compound are methylmethacrylate.
6. The resin composition of claim 1 wherein the aromatic vinyl compound is selected from the group consisting of styrene,  $\alpha$ -methylstyrene, o-

7. The resin composition of claim 1 wherein the vinylcyan compound is selected from the group consisting of acrylonitrile, methacrylonitrile, and ethacrylonitrile.

5 8. A method of manufacturing a thermoplastic transparent resin composition comprising the steps of:

a) producing a small aperture polybutadiene rubber latex having an average particle diameter of 600-1500 Å, a gel content of 70-95%, and a swelling index of 12-30 by reacting butadiene at 55-70°C using a polymerization initiator;

b) producing a large aperture polybutadiene rubber latex having a particle diameter of 2600-5000 Å, a gel content of 70-95%, and a swelling index of 12-30 by enlarging the small aperture polybutadiene rubber latex particles; and

15 c) performing graft copolymerization at 65-80°C by continuously or separately adding 3-15 parts by weight of the small aperture polybutadiene rubber latex of step a), 5-25 parts by weight of the large aperture polybutadiene rubber latex of step b), 40-70 parts by weight of a methacrylic acid alkylester compound or an acrylic acid alkylester compound, 15-30 parts by weight of an  
20 aromatic vinyl compound, and 1-20 parts by weight of a vinylcian compound.

9. The method of claim 8 wherein the methacrylic acid alkylester compound and the acrylic acid alkylester compound are methylmethacrylate.

10. The method of claim 8 wherein the aromatic vinyl compound is

SUB  
Q3

5/21

21

11. The method of claim 8 wherein the vinylcian compound is selected

12. The method of claim 8 wherein in step c), a total refraction coefficient

[illegible]